

What Is Claimed Is:

1. A system for flowing fuel vapor through a canister purge valve comprising:
a valve body having a wall defining a passage between a first port and a second port, the first port adapted for fuel vapor communication with a fuel vapor collection canister, the second port adapted for fuel vapor communication with an intake manifold of an internal combustion engine;
an elastomeric member disposed in the passage, the elastomeric member having a first end, a second end, and an active zone between the first end and the second end, the active zone forming a flow entry portion, a sealing portion, and a flow exit portion, the elastomeric member being deformable between a first configuration that prohibits flow over the sealing portion, and a second configuration that permits flow over the sealing portion;
a stator proximate the passage;
an electromagnetic coil surrounding the passage; and
an armature coupled to the elastomeric member.
2. The system for flowing fuel vapor through a canister purge valve of claim 1, wherein the armature is formed proximate the first end of the elastomeric member; and wherein the elastomeric member is fixed relative to the valve body proximate the second end of the elastomeric member.
3. The system for flowing fuel vapor through a canister purge valve of claim 2, wherein the elastomeric member is deformable between the first configuration and the second configuration by energizing the electromagnetic coil to magnetically attract the armature toward the stator to direct the sealing portion of the active zone away from the wall.

4. The system for flowing fuel vapor through a canister purge valve of claim 2, wherein the stator is disposed proximate the second port.
5. The system for flowing fuel vapor through a canister purge valve of claim 1, wherein the flow entry portion defines a first frustum; and wherein the flow exit portion defines a second frustum.
6. The system for flowing fuel vapor through a canister purge valve of claim 5, wherein a base of the first frustum is coupled to a base of the second frustum proximate the sealing portion.
7. The system for flowing fuel vapor through a canister purge valve of claim 6, wherein the first end, the second end, and the active zone define a chamber internal to the elastomeric member.
8. A method of flowing fuel vapor through a canister purge valve, the valve including an elastomeric member having a first end, a second end, and an active zone between the first end and the second end, the active zone forming a flow entry portion, a sealing portion, and a flow exit portion, the valve including a body having a wall defining a passage between a first port and a second port, the first port adapted for fuel vapor communication with a fuel vapor collection canister, the second port adapted for fuel vapor communication with an intake manifold of an internal combustion engine, the valve including an armature coupled to the elastomeric member, the elastomeric member being fixed relative to the valve body, the method comprising:
energizing an electromagnetic coil to magnetically attract the armature toward a stator and deform the sealing portion of the active zone away from the wall, to permit fuel vapor flow through the passage.
9. The method of flowing fuel vapor through a canister purge valve of claim 8, further comprising:

de-energizing the electromagnetic coil to retract the armature away from the stator to return the sealing portion of the active zone to the wall, to prohibit flow through the passage.

10. The method of flowing fuel vapor through a canister purge valve of claim 8, wherein the flow entry portion and the flow exit portion of the active zone deform away from the wall.